BEFORE THE BOARD OF ENVIRONMENTAL REVIEW
AND THE DEPARTMENT OF ENVIRONMENTAL QUALITY
OF THE STATE OF MONTANA

In the matter of the amendment of ARM 17.30.502, 17.30.516, 17.30.602, 17.30.607, 17.30.608, 17.30.610, 17.30.615, 17.30.619 through 17.30.629, 17.30.635, 17.30.641, 17.30.645, 17.30.650 through 17.30.658, 17.30.702, 17.30.705, 17.30.706, 17.30.708, 17.30.715, 17.30.716, 17.30.1001, 17.30.1006, 17.30.1007, 17.36.331, 17.36.335, 17.36.336, 17.36.345, 17.55.102, 17.55.111, and 17.56.507 pertaining to Department Circular WQB-7 and the adoption of new rules I and II pertaining to outstanding resource waters	NOTICE OF AMENDMENT AND ADOPTION (WATER QUALITY) (SUBDIVISIONS) (CECRA) (UNDERGROUND STORAGE TANKS)

TO: All Concerned Persons

1. On October 27, 2005, the Board of Environmental Review and the Department of Environmental Quality published MAR Notice No. 17-232 regarding a notice of public hearing on the proposed amendment and adoption of the above-stated rules at page 1957, 2005 Montana Administrative Register, issue number 20.

2. The Board and Department have amended ARM 17.30.502, 17.30.602, 17.30.607, 17.30.608, 17.30.610, 17.30.615, 17.30.619, 17.30.620, 17.30.623, 17.30.624, 17.30.625, 17.30.626, 17.30.627, 17.30.628, 17.30.629, 17.30.635, 17.30.641, 17.30.645, 17.30.650, 17.30.651, 17.30.652, 17.30.653, 17.30.654, 17.30.655, 17.30.656, 17.30.657, 17.30.658, 17.30.702, 17.30.705, 17.30.706, 17.30.708, 17.30.715, 17.30.716, 17.30.1001, 17.30.1006, 17.30.1007, 17.36.331, 17.36.335, 17.36.336, 17.36.345, 17.55.102, 17.55.111, and 17.56.507 and adopted New Rules I (17.30.617) and II (17.30.638) exactly as proposed and have amended ARM 17.30.516, 17.30.621 and 17.30.622 as proposed, but with the following changes, new material underlined, stricken material interlined:

<u>17.30.516 STANDARD MIXING ZONES FOR SURFACE WATER</u>

(1) through (3)(d) remain as proposed.

(4) The length of a standard mixing zone for flowing surface water, other than a nearly instantaneous mixing zone, must not extend downstream more than the one-half mixing width distance or extend downstream more than 10 times the stream width, whichever is more restrictive. For purposes of making this determination, the stream width as well as the discharge limitations are considered at the 7Q10 low flow. The recommended calculation to be used to determine the one-half mixing width distance ~~for~~ <u>downstream from</u> a <u>stream</u> bank discharge is described below.

(a) $A_{1/2} = [0.4(W/2)^2V]/2\pi L$, where:

(i) $A_{1/2}$ = one-half ~~area~~ mixing width distance;

(ii) through (6) remain as proposed.

17.30.621 A-CLOSED CLASSIFICATION STANDARDS (1) and (2) remain as proposed.

(3) No person may violate the following specific water quality standards for waters classified A-Closed:

(a) The geometric mean number of Escherichia coli bacteria may not exceed 32 colony forming units per 100 milliliters and 10% of the samples may not exceed 64 colony forming units per 100 milliliters during any 30-day period.

(b) through (i) remain as proposed.

17.30.622 A-1 CLASSIFICATION STANDARDS (1) and (2) remain as proposed.

(3) No person may violate the following specific water quality standards for waters classified A-1:

(a) The geometric mean number of Escherichia coli bacteria may not exceed 32 colony forming units per 100 milliliters and 10% of the samples may not exceed 64 colony forming units per 100 milliliters during any 30-day period if resulting from domestic sewage.

(b) through (k) remain as proposed.

3. The following comments were received and appear with the Board's and Department's responses:

COMMENT NO. 1: The United States Environmental Protection Agency (EPA) strongly supports the change to E. coli as the bacterial indicator for recreational use. EPA suggests, however, that for waters classified as A-Closed and A-1, the standard should specify an averaging period for determining compliance similar to the averaging period provided in the other classifications.

RESPONSE: The Board agrees that the clarification is needed and has amended the A-closed and A-1 classification as shown above for determining compliance with the E. coli standard.

COMMENT NO. 2: EPA strongly supports the proposed revisions to the numeric criteria in DEQ-7.

RESPONSE: The Board acknowledges the comment.

COMMENT NO. 3: EPA suggests modifying the ammonia standards in DEQ-7 to include specific methods or dates for determining when early life stages (ELS) of fish occur. The ELS should be specific in order to clarify when the ELS chronic standards will apply.

RESPONSE: Determining when ELS occur for purposes of applying the ammonia standards in Montana Pollutant Discharge Elimination System permits is done on a site-specific basis. Although the Department may access a table on a web site to determine the possible presence of ELS, actual conditions may favor a

different result. Therefore, the Board does not believe incorporation of a table or adopting specific dates to determine ELS is warranted. More importantly, since the Board has not proposed amending DEQ-7 to specify when ELS occurs, the suggested modification is outside the scope of this rulemaking.

COMMENT NO. 4: EPA suggests changing the aluminum aquatic life standard from dissolved to total recoverable analysis method.

RESPONSE: Aluminum is an extremely abundant element in minerals that make up suspended sediment from colloidal through sand or larger particle sizes. The total recoverable analysis method extracts an undeterminable amount of the non bio-available aluminum from the suspended sediment resulting in an overestimation of the bio-available fraction. The Board believes the dissolved aquatic life standard for aluminum is protective and is a better estimate of the bio-available fractions in the water including the rare occasions when dissolved and filterable bio-available aluminum particulates are present. Also, since the Board has not proposed changing the aluminum standard to a total recoverable method of analysis, the suggested modification is beyond the scope of this rulemaking.

COMMENT NO. 5: EPA suggests that, for hardness-dependent metals, the minimum hardness value of 25 mg/L as CaCO3 be eliminated.

RESPONSE: The Board believes that the existing low hardness limit of 25 mg/L as CaCO3 is protective of aquatic life uses and there is no need to eliminate the hardness limit as a means of deriving more stringent standards for metals. However, the Board also believes that a future technical review of this issue may be a worthwhile effort for the Department. Finally, since the Board has not proposed eliminating the low hardness limit, the suggested change is beyond the scope of this rulemaking.

COMMENT NO. 6: EPA has determined that its earlier informal comment to the Department (suggesting that the mixing zone formula was wrong) was incorrect. EPA now comments that the equation in the current rule is indeed the correct one and should not be modified. EPA further suggests that the equation, as currently written, measures area when it should measure distance downstream from the discharge. In order to ensure that distance is measured, EPA suggests modifying ARM 17.30.516(4) to read: ". . . The recommended calculation to be used to determine the one-half mixing width distance downstream from a stream bank discharge is described below.

(a) $A_{1/2} = [0.4(W/2)^2V]/L$, where:

(i) $A_{1/2}$ = one-half ~~area~~ mixing width distance;".

RESPONSE: The Board agrees with the comment and has amended the rule as shown above.

COMMENT NO. 7: The Western Environmental Trade Association (WETA) submitted comments stating that the Board's proposed revisions to DEQ-7 express the numeric surface water quality standards as total recoverable and, therefore, are inconsistent with EPA's position that the states should use the dissolved method for determining compliance with ambient surface water quality standards for metals.

RESPONSE: As an initial matter, EPA's position on using a dissolved method of analysis for determining compliance with water quality standards applies only to numeric standards for metals. Since the Board is not proposing to change any of the numeric standards for metals, WETA's comment indicating that the Board is adopting standards in a manner that is inconsistent with EPA is incorrect. Rather than changing the numeric standards for metals, the Board is simply modifying the manner in which the hardness value is displayed in DEQ-7 for hardness dependent metals. The proposed modification for displaying the hardness value does not in any way change the numeric standards themselves. Since the Board has not proposed changing the manner in which compliance with the numeric standards for metals is measured (i.e., from total recoverable to dissolved), WETA's suggestion to change to dissolved is outside the scope of this rulemaking.

COMMENT NO. 8: WETA suggests that the Board's proposal to adopt the amended rules revising the DEQ-7 water quality standards potentially violates Montana state law prohibiting the promulgation of state standards more stringent than corresponding federal regulations, guidelines or criteria, if the Board provides no sufficient scientific and technical evidence to support adoption of the more stringent state standards.

RESPONSE: Since the Board is not proposing to change any numeric standards for metals, the Board is not adopting standards that are more stringent than EPA's. Therefore, no findings are necessary under state law. See Response to Comment No. 7.

Reviewed by:

/s/ James M. Madden
JAMES M. MADDEN
Rule Reviewer

BOARD OF ENVIRONMENTAL REVIEW

By: */s/ Joseph W. Russell*
JOSEPH W. RUSSELL, M.P.H.
Chairman

DEPARTMENT OF ENVIRONMENTAL QUALITY

BY: */s/ Richard H. Opper*
RICHARD H. OPPER, Director

Certified to the Secretary of State, February 13, 2006.